

AVMATRIX®

8CH SDI/ HDMI PORTABLE VIDEO SWITCHER

Revolutionize your live streaming with the Video Switcher,
the all-in-one solution for live streamers.

SHARK S8X





Compact Design

Multiple Inputs & Outputs

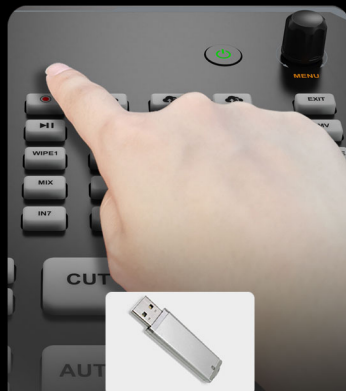
SDI

4K
HDMI

REF

Support Macro

MACRO



High Quality Recording

Professional Audio Processing



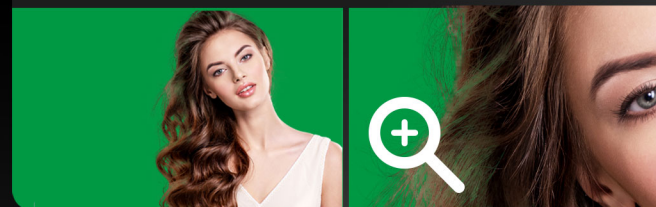
Convenient PTZ Camera Control



Live Stream Via Ethernet or USB Capture



Luma key, Chroma key, PIP, DSK and LOGO



Clear Multiview for Effortless Monitoring

The built-in clear multiview allows you to monitor every detail. From PVW and PGM to audio settings, PTZ camera settings, and FN key configurations, all information is displayed in a clear and organized layout.

 0

PROTOCOLS	PT SPD.	ZOOM SPD.	FOCUS SPD.	OPERATION	R1	R2	R3	MACRO
...	50	50	50	F SPD 50	PTZ	Red Gain	IRIS	...

 SPEED1 0.5s

AUX  ON

REC  SD

RUNTIME

Custom	Custom	Custom
00:00:00	00:01:20	00:00:00



 F1 Flip 1
Flip 1

 F2 Flip 2
Flip 2

 F3 Player List
Player List

 F4 AUX To 1
AUX To 1

 F5 Call M 5
Call M 5

 F6 REC M 6
REC M 6



PGM	IN1	IN2	IN3	IN4	IN5	IN6	IN7	IN8	MIC1	MIC2	LINE
0	0	0	0	0	0	0	0	0	0	0	0
ON	AFV	AFV	AFV	AFV	AFV	AFV	AFV	AFV	ON	ON	ON

CPU / MEMORY



 21°C
TEMP.

11:23:49
10/01/2025

Versatile Inputs and Outputs

This switcher supports 8 inputs (6 SDI, 2 SDI/HDMI), one REF input and 7 flexible outputs (2 HDMI, 4 SDI, 1 multiview), handling up to 4K60 HDMI signals. It allows flexible source selection and configuration, ensuring high adaptability for professional production.



INPUTS & REF IN

supports 8 inputs (6 SDI, 2 SDI/HDMI)
and one REF input



OUTPUTS

Supports 7 flexible outputs
(2 HDMI, 4 SDI, 1 multiview) and one REF output



Convenient PTZ Control

The switcher features a PTZ controller supporting pan, tilt, zoom, and gain via RS232/RS422/RS485 and LAN. It controls up to 8 IP cameras and supports VISCA, ONVIF, and NDI protocols. *NDI version for optional.



Professional XLR Audio and 48V Phantom Power

The switcher features professional XLR input/output, supporting XLR, TRS, also it comes with 48V phantom power for condenser mics. User can configure AFV, audio mixing and 500ms audio delay, making it ideal for professional productions.

TRS Input

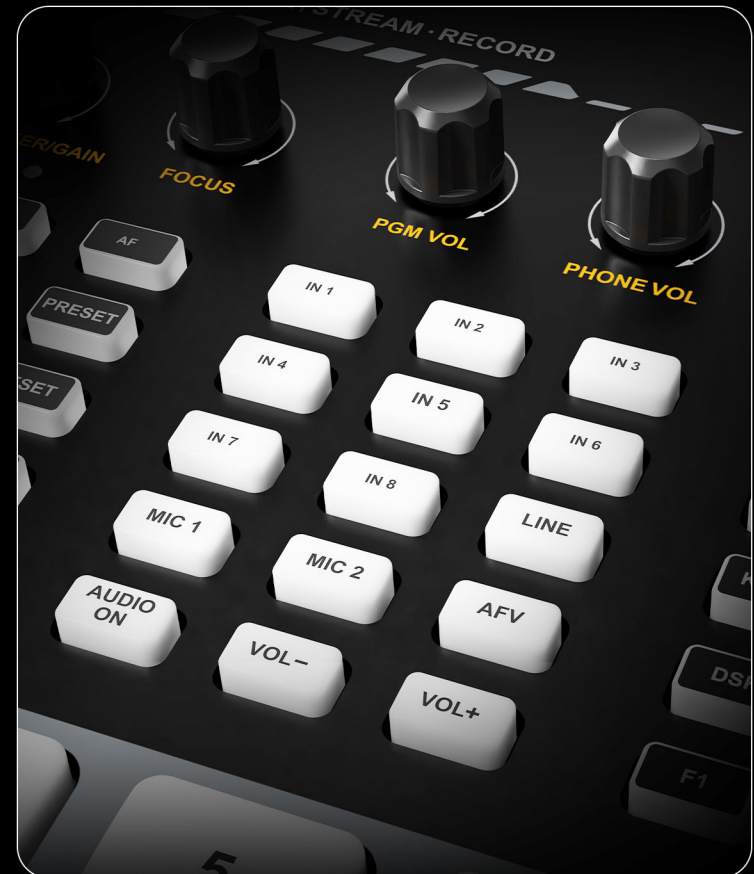
TRS input interface offering great flexibility for connecting various audio devices such as instruments, or mixers.

XLR Input

XLR input interface is a standard for professional audio equipment.

Audio out

XLR output interface is the output for switcher audio signals, suitable for connecting speakers, etc.



Advanced Keyer Functions

The switcher integrates 3 powerful upstream keys for users to set if freely to PIP, LUMA Key, Chroma Key freely and DSK, logo overlay. Position and size of these keys can be easily adjusted through the buttons or menu knob.



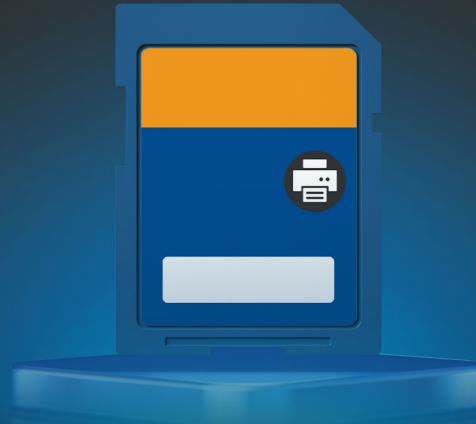


USB DISK

USB recording enables direct audio/video storage on a flash drive without extra setup. It's simple, portable, and widely compatible.

SD CARD

SD card is a convenient option for switcher recording. Its compact size makes it highly portable, and its read/write speeds are sufficient.



SATA

The SATA drive is a high-performance storage choice for switcher recording, ideal for handling high-bitrate video or long-duration recording tasks.

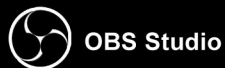


Build-in Recording

This switcher supports 1080p60 recording at up to 32Mbps via SD card, USB, and SATA, offering professional-grade storage in MP4 and TS formats for seamless workflow integration.

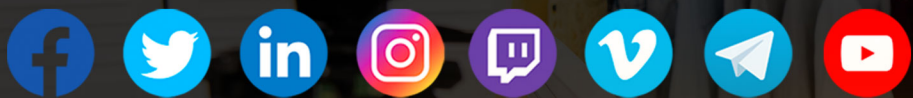
Uncompressed USB Capture

The USB Type-C port functions can be used as a webcam, supporting uncompressed video and audio capture. It streams to various software and platforms including OBS, vMIX, ZOOM, Teams, and VLC, and is compatible with Windows, Linux, and Mac systems. Capture Support RGB32,YUY2, NV12.



Live Stream Via LAN Port

The LAN port supports IP streaming transmission through the RTMP, SRT, NDI(Optional) protocol, allowing users to easily live stream video programs to platforms such as YouTube, Skype, Facebook, and Twitch, and get high-quality videos.



Streamline Your Production with Macro

Users can execute recorded macros to replay a series actions with a single click, streamlining complex operations and boosting live production efficiency and professionalism.



AUX Expansion Input

The switcher provides a powerful expansion input which is compatible with media players, UVC devices, streaming, and NDI sources(Optional), offering flexible signal selection and enhanced content options.



Media Player



UVC Device



Pull Stream

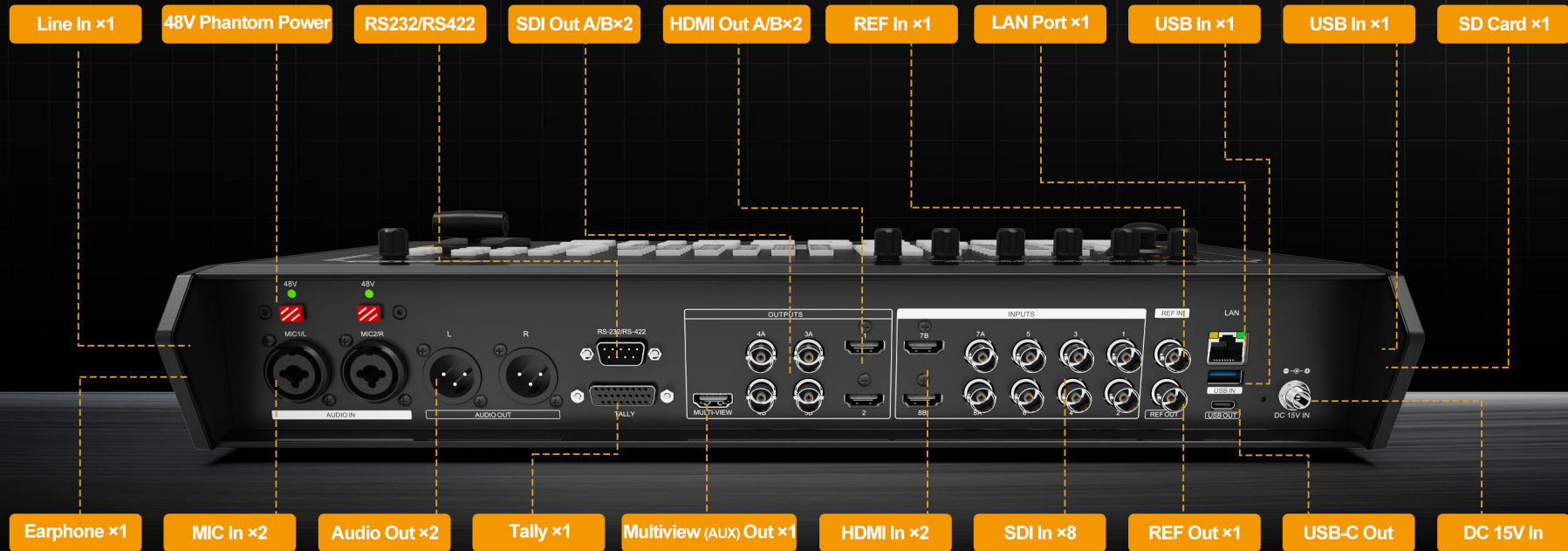


NDI Sources
(Optional)

AUX

Rich Interfaces

The interface is hidden in the case, which can protect the interface from being damaged.



PTZ Control

The camera can be controlled by the knob to realize the functions of pan, tilt, zoom, focus, gain, iris, shutter and so on.

Audio

Support audio mixing, AFV mode, volume adjustment and MASTER/ PHONE / PGM audio control.

Key

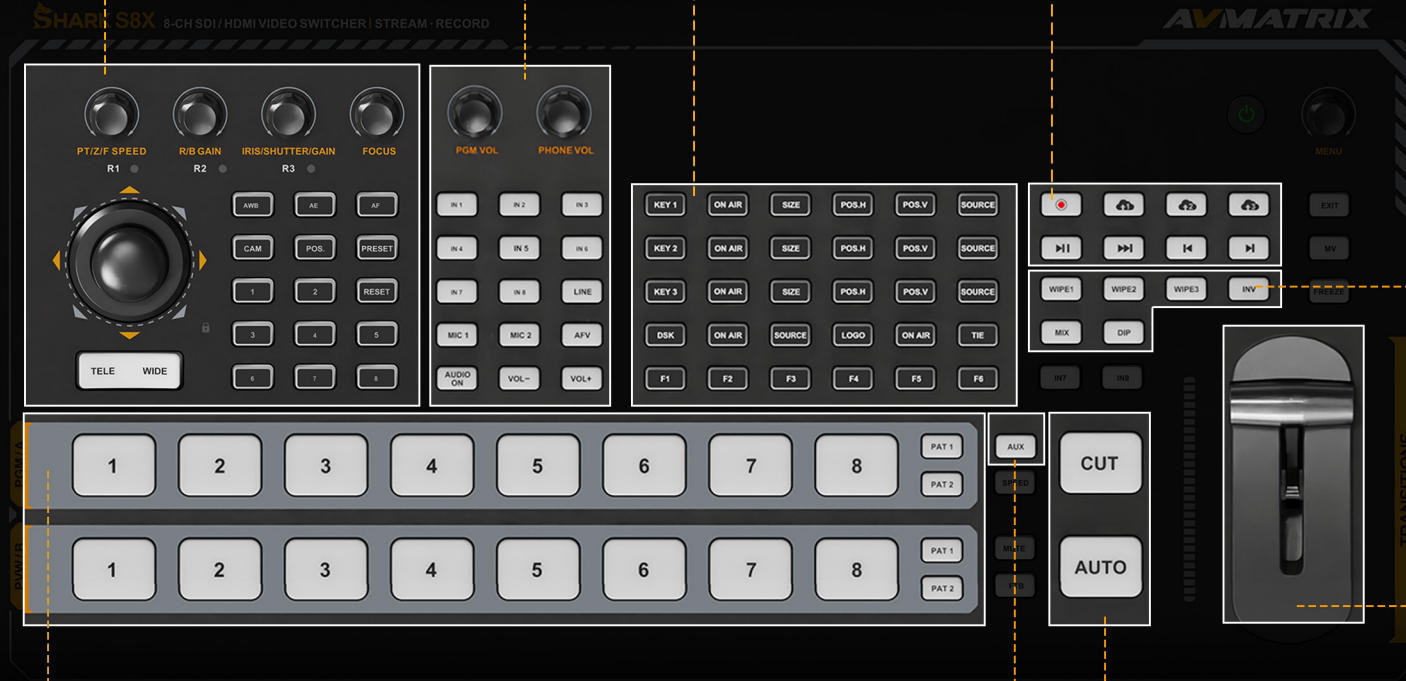
Support Chroma key & Luma key, 3xPIP,DSK, LOGO, TIE, and F1-F6 key.

Record & Streaming

Support recording via USB Disk/ SD Card/ SATA, and RTMP/SRT streaming via LAN Port.

Transition Effects

Support (11×3) × WIPE, MIX, DIP transition effects.



PGM/PVW(A/B)

Selecting the signal source for PGM or PVW. In A/B mode, the function of PVW & PGM is determined by the position of the fader.

AUX

Selecting AUX input source from player, UVC devices, pull stream, NDI sources.

CUT/AUTO

Automatic and fast switching. It also swap the functionality of the AUTO and CUT buttons.

T-Bar

The fader can be enabled or disabled for switching.

Extensive Applications

All-in-one audio video switchers can be used in a wide range of live events such as live sports, virtual studios, churches, home entertainment, weddings, concerts, etc.



Wedding



Live Sports



Broadcast



Live Concert



Church

SPECIFICATIONS

CONNECTIONS	
Video In	3G-SDI×8, 4K HDMI×2, BNC Ref×1, AUX×1, USB-A(UVC)×1
Video Out	HDMI(A/B, PGM)×2, SDI(A/B, PGM)×4, HDMI(Multiview)×1, USB-C(UVC)×1
Audio In	XLR/TRS×2, +48V phantom power, 3.5mm TRS(Line)×1
Audio Out	XLR× 2, 3.5mm TRS(Line)×1, 3.5mm TRS(Earphone)×1
Reference In	BNC In×1, BNC Out×1; Tri-Sync or Black Burst.
Network Port	LAN×1(Stream, PC control, PTZ control, Upgrade)
USB Port	USB type-C×1(For Capture), USB type-A×2(For USB CAM, Record, Configuration/Media Import/Export)
Tally Port	DB-26×1
Serial Port	RS232/RS422/RS485×1, PTZ camera control
Record Port	USB disk slot×1, SD card slot×1, 2.5-inch SATA slot×1
STANDARDS	
SDI Inputs	1080p 60/59.94/50/30/29.97/25/24/23.98 1080psF 30/29.97/25/24/23.98 1080i 60/59.94/50 720p 60/59.94/50/30/29.97/25/24/23.98 625i 50, 525 i59.94
HDMI Inputs	4K 60/50/30, 2K 60/50/30 1080p 60/59.94/50/30/29.97/25/24/23.98 720p 60/59.94/50/30/29.97/25/24/23.98 576p 50, 480p 60/59.94
SDI Outputs	1080p 60/59.94/50/48/47.95/30/29.97/25/24/23.98 1080i 60/59.94/50
HDMI Outputs	1080p 60/59.94/50/47.95/48/30/29.97/25/24/23.98, 1080i 60/59.94/50
Video Sampling	SDI: YUV 4:2:2 10bit; HDMI: YUV, RGB full, RGB limit
Color Space	SDI&HDMI: Rec 709, Rec 601
STREAM & RECORD	
USB Capture Out	YUY2, NV12, RGB32, Up to 1080p60 (Max 200Mbps) Supports OS: Windows 7/8/10/11, Linux(Kernel version 2.6.38 and above), Mac OS(10.8 and above) Software compatibility: OBS studio, Skype, ZOOM, Teams, Youtube Live, etc.
Stream	Bit rate: Up to 32Mbps
Record	Storage format: USB disk, SD card, SATA(FAT32/exFAT/NTFS/ext4) File format: MP4/TS, Up to 1080p60(32Mbps) Rate control: CBR/VBR
Protocol	Push Stream: RTMP(S), SRT, NDI(HX2(Optional)) Pull Stream: RTSP, HTTP, NDI(HX3(Optional)) PTZ control: Visca, Onvif, Pelco D/P, NDI(Optional)

MEDIA	
Media Format	Video: MP4, TS Image: JPG, PNG, BMP, JPEG, Max 1920×1080 pixels Logo: JPG, PNG, BMP, JPEG, Max 650×650 pixels
Aux In	Media player, USB(UVC) in, Pull stream, NDI stream(Optional)
FEATURES	
Macro	20, Support record and playback
Keys	Up to 6 overlay, Adjustable size and position 1. Upstream Key×3: Chroma Key/Luma Key/PIP 2. Downstream Key×1: DSK ×1 3. Logo ×1
Audio Mixer	Up to 10 channel audio mixer(Video×8+XLR/TRS×2)
POWER & OTHERS	
Power	Wide Voltage Support: 9V - 24V; Working: DC 15V, 50W max
Temperature	Working: -20℃~50℃, Storage: -30℃~70℃
Dimension(LWD)	440×281.5×65.1mm
Weight	Net: 3685g



Accessories



15V 4A Power Adapter



USB3.0 Type-C Cable



Tally Connector(DB-26)